

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action January 13, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-15 are under consideration in this application. Claims 10-15 are being amended, as set forth above and in the attached marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention.

Additional Amendment

The specification and the claims are being amended to correct formal errors and/or to better disclose or describe the features of the present invention as claimed. All the amendments to the specification and the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 10-14 were objected to due to informalities and the Examiner requested correction thereof. Claim 15 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in claiming the invention.

As indicated, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Allowable Subject Matter

Claims 1-9 were allowed, and claims 10-14 would be allowed if they are amended to overcome the objections described above. As claims 10-14 are being amended to overcome the objection, claims 1-14 are in condition for allowance.

Prior Art Rejections

Claim 15 was rejected under 35 U.S.C. § 102(b) as being anticipated by US Pat. No. 5,363,109 to Hofgen et al. and claim 15 was further rejected under 35 U.S.C. § 102(e) as being anticipated by US Pat. Application No. 2004/0254980 to Motegi et al. or US Pat. No. 6,807,427 to Sakamoto et al.. The prior art references of Cedervall et al. (US Patent No. 6,011,974) and Tsunehara et al. (U.S. Pat. Application No. 2002/0132626) were cited as being pertinent to the present application. These rejections have been carefully considered, but are most respectfully traversed.

A position calculating apparatus 12 (for example, the embodiment depicted in Figs. 3 & 5; p. 9, lines 11-23; p. 11, line 10 to p. 13, line 23) for calculating the position of a mobile station 11 by using reception timings and reception positions of signals transmitted and received between the mobile station 11 and a base station 7 associated with the mobile station 11 (p. 11, lines 20-23), as now recited in claim 15, comprises: a network interface 150 for receiving association information of the mobile station 11 including address information of the base station 7 associated with the mobile station 11 (p. 12, lines 7-10); and a control unit 151 for communicating said address information of the associated base station to a plurality of receivers (p. 12, lines 12-15; p. 13, lines 17-23). The address information is used by receivers (e.g., the plurality of base stations 200, p. 12, last paragraph; also see the allowed claim 10) to identify incoming signals used for the position calculation.

The signals used for position calculation is transmitted between the mobile station 11 and the associated base station 7, and the address information on the associated base station 7 is used by the by-standing “receivers” to identify the signals used for the position calculation (i.e. signals from the mobile station 11 addressed to the associated base station 7). For example, a wireless signal is first pinged (p. 13, line 14) from the associated base station 7 to the mobile station 11 (Fig. 5), and then echoed (p. 13, lines 17-18) wireless signals are received by base stations

including those base stations 2, 6 which did not ping any wireless signals to the mobile station 11 (p. 13, lines 14-19). In other words, the base stations 2, 6 act like by-standing "receivers" which receive echoed wireless signals from the mobile station 11 back to the associated base station 7, i.e., not addressed to them, but can recognize the received echoed wireless signals as signals for position calculation to send them to the server 12 (p. 12, last paragraph). The MAC addresses of the mobile station 11 and the associated base station 7 are used by the plurality of base stations 200 to identify incoming wireless signals used for the position calculation.

Each of the receivers (i) receives a signal transmitted between the mobile station 11 and the associated base station 7 (i.e., either the "from address" or the "to address" being the associated base station) and addressed only to the mobile station 11 or the associated base station 7, and (ii) identifies the received signal as a signal for position calculation.

Applicants respectfully contend that none of the cited prior art references teaches or suggests "using such receivers each receives signals not addressed to them" for the calculation of the position of the mobile station 11 according to the invention.

In contrast, Hofgen only has base stations (interrogators) S1-4 each transmitting its own interrogation signal to a mobile station/aircraft, and then receives a reply from the mobile station individually. Then the elapsed time between the transmission of the interrogation signal and the reception of the reply signal at the interrogators are used to locate the airborne stations (col. 1 lines 1-37). Hofgen's base stations (interrogators) S1-4 simply does not do use any receivers each of which receives signals not addressed to them for the calculation of the position of a mobile station.

In addition, the address of the aircraft (transponders) is used in Mode S (selective mode) so that only the transponders of an aircraft whose address is contained in the interrogation signal respond to the interrogation of a particular base station thereby avoiding signals from transponders of another aircraft in the reception area to transmit reply signals too (col. 1, lines 37-47; col. 4, lines 1-14). The addresses referred in Hofgen are not Media Access Control (MAC) addresses (as defined in IEEE specifications for the lower half of the data link layer (layer 2) that defines topology dependent access control protocols for IEEE LAN specifications).

Applicants hereby contend that Motegi is disqualified as 102(e) prior art since Motegi's PCT application PCT/JP03/07141 was filed and published in Japanese, and then entered the US

national stage with its later submitted English translation. As Motegi's PCT patent application was published in Japanese rather than in English under PCT Article 21(2)(a), it can't be used as a 102(e) reference against other US applications.

*An international application is prior art under 35 U.S.C. 102(e) only if (1) the international application designated the United States, (2) the **international application was published under PCT Article 21(2)(a) in English**, (3) the international application was filed on or after November 29, 2000, and (4) the international application entered the national stage as to the United States. See MPEP §706.02(a) & 2136.03.*

Applicants recognize that Motegi's PCT publication WO 03/105519 has a publication date of Dec. 18, 2003 that is "later" than (not "before") the earliest effective filing date (Japanese priority date) of the application, namely March 24, 2003. Under the Hilmer I doctrine (MPEP. 2136.03), Applicants' JP priority date may be used to predate the Motegi PCT filing date, even if Motegi's JP priority date predated the application:

A U.S. patent reference is effective prior art as of its U.S. filing date. 35 U.S.C. 119(a)-(d) and (f) does not modify section 102(e) which is explicitly limited to certain references "filed in the United States before the invention thereof by the applicant" (emphasis added). Therefore, the foreign priority date of the reference under 35 U.S.C. 119(a)-(d) and (f) cannot be used to antedate the application filing date. In contrast, applicant may be able to overcome the 35 U.S.C. 102(e) rejection by proving he or she is entitled to his or her own 35 U.S.C. 119 priority date which is earlier than the reference's U.S. filing date. In re Hilmer, 359 F.2d 859, 149 USPQ 480 (CCPA 1966) (Hilmer I) (Applicant filed an application with a right of priority to a German application. The examiner rejected the claims over a U.S. patent to Habicht based on its Swiss priority date. The U.S. filing date of Habicht was later than the application's German priority date. The court held that the reference's Swiss priority date could not be relied on in a 35 U.S.C. 102(e) rejection. MPEP. 2136.03.

A copy of the English translation of the JP priority document of the present application is being prepared and will be forwarded through a supplemental response to show that the patentable features were in Applicants' possession since March 24, 2003.

Sakamoto fails to compensate for Hofgen's deficiencies. Sakamoto only discloses a push type information distribution method (Abstract). In this method, the location information is used only for the radio terminals which are in the area for long enough receives the information (col. 5, line 54 to col. 6, line 27). The position is calculated using information, such as radio base

station identifier, rather than any reception timing as in the claimed invention. Further, the time measurement unit 104 measures time periods (time duration, e.g., "3 minutes and 10 seconds"), rather than reception timing (which is an exact timing, e.g., "14:20:30.05") as in the claimed invention, and the time period in Sakamoto is used only to confirm that the radio terminal is in the area. long enough to judge whether the user is staying in the area.

In addition, the address information in Sakamoto's user information memory unit 204 is information about the "user", whose address may be a postal address, rather than any MAC addresses used by a network system as one embodiment of the invention. Sakamoto does not use any MAC addresses of the associated base station 7 and the mobile station 11 by the plurality of base stations 200 to identify incoming wireless signals used for the position calculation as the invention.

Accordingly, Applicants contend that the suggested combination does not embody each and every feature of the present invention as now claimed in claim 15. The difference is more than sufficient that the present invention as now claimed would not have been rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Conclusion

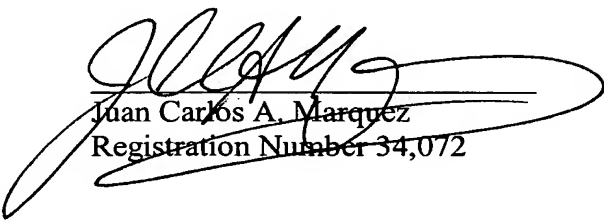
In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the

above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

April 13, 2005

SPF/JCM/JT